

Application No.: 10/709,606

Docket No.: 12239-US-PA

REMARKS**Present Status of the Application**

The Advisory Action dated March 03, 2006 has objected to claims 7 and 8, and alleged that claim 7 does not specifically recite what device/element receives an input voltage using a low pass filter and a high pass filter.

Furthermore, the Examiner has alleged that claim 7 does not specifically recite that the output cannot be fed back after the time of 122 microseconds.

Applicants respectfully traversed the objections addressed to claims 7 & 8 and amend the claims for at least the reasons set forth below.

Discussion of Objections

In regards to the objection to claim 7 for not specifically recite what device/element receives an input voltage using a low pass filter and a high pass filter, a claim limitation in claim 7 is amended from "receiving an input voltage using a low pass filter and a high pass filter, wherein the high pass filter is coupled to the low pass filter" to be "receiving an input voltage **by an amplifier** using a low pass filter and a high pass filter, wherein the high pass filter is coupled to the low pass filter". The above claim amendment is fully supported in FIG. 3 of the present invention in which a node 13 located at the negative input terminal of the amplifier 30 is where an input voltage V_i is received using a low pass filter 20 and a high pass filter 22. Therefore, the amended claim 7 clearly specifies that an amplifier is the element which receives an input voltage using a low pass filter and a high pass filter.

Application No.: 10/709,606

Docket No.: 12239-US-PA

Furthermore, in response to the remarks by the Examiner that claim 7 does not specifically recite that the output cannot be fed back after the time of 122 microseconds, the following are the corresponding traversal:

The main point of contention is not whether the output can be fed back after the time of 122 microseconds, but should be instead the patentability of the following entire amended limitation in claim 7 “feeding back the output signal of the inverting-gain amplifier to the inverting-gain amplifier when there is state change in the compared result regardless of the number of changes of an input voltage” over the AAPA. A state change in the compared result is fully defined in the present invention in Paragraph [0010]: “[w]hen the compared result from the comparator is from a high level to a low level, or from a low level to a high level...” A state change in the compared result is clearly illustrated in the third row in FIG. 5 after time is greater than 122 microseconds and in which the input voltage is shown to have changed a few times. Therefore, a state change is clearly observed no matter how many times the input voltage is to be changed in the present invention. On the other hand, no state change for the voltage at the node 15 after time is greater than 122 microseconds is clearly observed in FIG. 2 and described in Paragraph [0008] for AAPA. Therefore, AAPA clearly does not undergo a state change when the input voltage V_1 has undergone a number of changes after time is greater than 122 microseconds as shown in FIG. 2 of the present invention. As a result, “when there is state change in the compared result regardless of the number of changes of an input voltage” in the above claim limitation in claim 7 is clearly patentable over AAPA.

Furthermore, the “state change in the compared result” of the present invention clearly affects and determines the value of the “output signal of the inverting-gain

Application No.: 10/709,606

Docket No.: 12239-US-PA

amplifier" as shown in FIGs. 2 & 5 of the present invention, therefore, the output signal of the amplifier is clearly different when there is a state change versus when there is no state change. As a result, the "output signal of the inverting-gain amplifier when there is state change in the compared result" in claim 7 is clearly different and is patentable over "output signal of the inverting-gain amplifier when there is no state change" in AAPA.

Application No.: 10/709,606

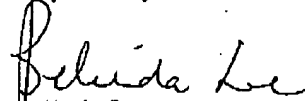
Docket No.: 12239-US-PA

CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-8 of the present application patentably define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Date: *March 17, 2006*

Respectfully submitted,


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